

REMARKS

Claims 21 – 23, 25, 26 and 28 – 38 are currently pending in the application. By this amendment, claims 21, 25, 30 – 34 and 36 have been amended and claims 24 and 27 have been canceled. Specifically, the features of claim 24 and additional features have been incorporated into claim 21 and the features of claim 27 have been incorporated into claim 25. Additionally, claims 30, 33 and 36 have been amended to further define the invention and claims 31, 32 and 34 have been amended to provide proper antecedent basis. Applicants submit that no new matter has been added by this amendment. Support for the amendment can be found, for example, at least in previously presented claims 24 and 27, page 2, line 32 – page 3, line 1 and page 7, lines 10 – 15. Reconsideration of the rejected claims in view of the above amendments and following remarks is respectfully requested.

Double Patenting Rejection

Claim 30 was rejected on the ground of non-statutory obviousness-type double patenting as being unpatentable over claims 4 and 5 of U.S. Patent No. 6,219,837. Specifically, the Examiner asserts that claim 30 is broader in every aspect than claims 4 and 5 of U.S. Patent No. 6,219,837 and is therefore an obvious variant thereof. Applicants respectfully disagree.

Applicants submit that previously presented claim 30 includes additional features that are not contained in either claim 4 or 5 of U.S. Patent No. 6,219,837. That is, for example, previously presented claim 30 recites, in pertinent part (emphasis added):

. . . displaying said video program and said summary frames on a screen at a same time with said video program when a viewer changes to said video program.

As such, Applicants submit that claim 30 is not broader in every aspect than claims 4 and 5 of U.S. Patent No. 6,219,837, and is therefore not an obvious variant thereof, as the Examiner asserts.

Accordingly, Applicants respectfully request the rejection of claim 30 on the ground of non-statutory obviousness-type double patenting be withdrawn.

35 U.S.C. § 112, 2nd Paragraph Rejection

Claim 35 was rejected as being indefinite for failing to particularly point out and distinctly claim the invention. By this amendment, Applicants have amended claim 30 to provide proper antecedent basis for the features of claim 35.

Accordingly, Applicants request the rejection of claim 35 under 35 U.S.C. § 112, 2nd paragraph be withdrawn.

35 U.S.C. § 102 Rejections

Claims 30 – 32 and 34 were rejected under 35 U.S.C. §102(e) for being anticipated by U.S. Patent No. 5,692,213 issued to Goldberg et al. (“Goldberg”). This rejection is respectfully traversed.

To anticipate a claim, each and every element as set forth in the claim must be found, either expressly or inherently described, in a single prior art reference. MPEP § 2131. Applicants submit that Goldberg does not disclose all of the features of the claimed invention.

Independent Claim 30

The present invention relates to a video viewing system and method. Claim 30 recites, in pertinent part:

... selecting a plurality of summary frames depicting selected events from said video program in progress prior to a broadcast transmission of the video program in progress;
embedding said summary frames in said video program in progress;
transmitting said video program in progress comprising said summary frames over a media and
displaying said video program in progress and said summary frames on a screen at a same time with said video program in progress when a viewer changes channels to said video program in progress from a video program on another channel.

Applicants submit that each of these features are not disclosed by Goldberg. For example, Applicants submit that Goldberg does not disclose: (1) selecting a plurality of summary frames depicting selected events from said video program in progress prior to a broadcast transmission of the video program in progress; or (2) displaying said video program in progress and said summary frames on a screen at a same time with said video program in progress when a viewer changes a channel to said video program in progress from a video program on another channel.

In addressing previously presented claim 30, the Examiner asserts that Goldberg discloses each of the features of the present invention. Goldberg discloses a method for controlling real-time presentation of audio/visual data on a computer system. More specifically, Goldberg is aimed at solving two problems that can occur with live-transmission multimedia presentations. The first problem arises when a person is viewing the meeting from the beginning and wants to go back to review something while the meeting is in progress without missing anything. A second problem is where a person wants to join a meeting in progress and needs to be brought up-to-date with what has already transpired. Thus, to address these problems, Goldberg discloses a method of recording a real-time multimedia presentation and replaying a

missed portion at an accelerated rate until the missed portion catches up to the current point in the presentation.

No Disclosure of Selecting Summary Frames Prior to Broadcast

Applicants submit that Goldberg does not disclose selecting a plurality of summary frames depicting selected events from said video program in progress prior to a broadcast transmission of the video program in progress. Rather, Applicants submit that with Goldberg, key frames (which the Examiner designates as the recited summary frames) are dynamically selected in real-time as the live presentation proceeds. More specifically, Goldberg discloses at column 4, lines 15 – 34 that (emphasis added):

In FIG. 3, window 222 includes a number of keyframes to help the user access different portions of the recorded presentation. The recorded portion may be accessed while recording is still in progress. Keyframes 224, 226, 228, 230, 232, and 234 form a storyboard that represents the video images that were displayed at different points in time of the recording. Keyframe 224 represents the frame, or screen image, that was being shown when recording began. Keyframe 226 shows the frame 20% "into" the recording buffer. Likewise keyframes 228, 230, and 232 show the frames at 40%, 60%, and 80% into the storage area, or recording buffer, respectively. Keyframe 234 shows the current screen image of the real-time presentation, that is, a real-time display of what is happening in the presentation at the moment. While FIG. 3 shows each keyframe labeled as, for example, "still," "20%," "40%," in practice, each keyframe will display an image from the recorded video. If, for example, the presentation is a lecture, each keyframe will show one or more speakers, a close up of a visual aid used in the lecture, etc.

Keyframe 224 always shows the point where recording began and does not change. As the buffer stores more screen images, however, keyframes 226, 228, 230, 232, and 234 change. The rate at which each keyframe changes is proportional to its currency. Thus, the display rate of keyframe 226 is 20% of keyframe 234, which is changing at real-time speed.

Thus, Applicants submit that with Goldberg, the key frames are dynamically changing as recording and transmission of the live presentation proceeds. As such, Applicants submit that

Goldberg does not disclose selecting a plurality of summary frames depicting selected events from said video program in progress prior to a broadcast transmission of the video program in progress, as recited in claim 30.

No Disclosure of Displaying When Viewer Changes Channels

Additionally, Applicants submit that Goldberg does not disclose displaying said video program in progress and said summary frames on a screen at a same time with said video program in progress when a viewer changes channels to the video program in progress from a video program on another channel. That is, with Goldberg a computer system, e.g., server, receives a real-time multimedia presentation and stores the presentation in a storage area, e.g., a hard disk. A user may then access the server to play the multimedia presentation. More specifically, Goldberg discloses at column 3, lines 47 – 64 that:

FIG. 6 shows a preferred embodiment of the invention in which multiple computers are connected to a computer network. The network is maintained by centralized server 602 that is a shared resource connected to remote computers 604 on the network. The network can be implemented by any means that is known in the art. Camera 606 is used to capture multimedia presentation 608. Multimedia presentation can consist of video images, computer graphics, speech, music, etc. The presentation is converted into electronic signals 610, transferred to network server 602 and stored in storage area 612. Once stored, each computer 604 can access the stored presentation independently and simultaneously as described herein. A preferred format for storing and retrieving the presentation is the UNIX file format. This format allows for multiple different read points in a stored file and for simultaneous read/write of a shared file from an operating system viewpoint. See "The Design of the UNIX Operating System," by Maurice J. Bach, Prentice Hall 1986.

In view of the above, Applicants submit that Goldberg does not disclose displaying said video program in progress and said summary frames on a screen at a same time with said video program in progress when a viewer changes channels to said video program in progress from a

video program on another channel. That is, with the present invention, the summary frames and video program in progress are accessed by switching channels to the video program in progress from another channel airing another video program. Thus, when the viewer using the present invention switches channels to the video program in progress, that viewer is not only presented with the video program in progress, but also with summary frames of the video program in progress.

In contrast, with Goldberg the video program and the key frames are presented when a user, via their computer, accesses the presentation from the centralized server. That is, the user must proactively connect with the centralized server to request access to the real-time presentation from the centralized server. As such, Applicants submit that with Goldberg, the displaying does not occur upon a user changing channels, as recited in claim 30.

Moreover, while Applicants acknowledge that a user of Goldberg may conceivably switch from playback of one video presentation to playback of another video presentation, Applicants submit that the user would not access the other video presentation by changing channels, as recited in claim 30. Rather, Applicants submit that a user of Goldberg must access the centralized server storage to receive the other presentation. Applicants submit that accessing the centralized server cannot be construed as switching channels.

Thus, for at least these reasons, Applicants submit that Goldberg does not disclose each of the features of claim 30, and does not anticipate the present invention.

Dependent Claims 31, 32 and 34

Claims 31, 32 and 34 are dependent claims, depending from a distinguishable base claim. Accordingly, these claims should also be in condition for allowance based upon their dependencies.

Claim 32

Additionally, Applicants submit that Goldberg does not disclose each of the features of claim 32. Claim 32 recites, in pertinent part:

. . . continuing to display said summary frames when said video program in progress is preempted.

As set forth in the specification, with the present invention, the summary frames are still presented when the video program in progress is preempted. That is, for example, if the video program in progress is preempted by a commercial break, the summary frames remain presented to the user. As disclosed, this allows a channel surfer to still ascertain what the video program in progress relates to even while the video program in progress is currently preempted by a commercial break.

In addressing claim 32, the Examiner stated:

. . . Goldberg discloses the window (222) comprising key frames is displayed “during normal operation” while the program is being played in the background screen (see column 3, lines 24 – 33 and column 4, lines 47 – 49). Goldberg therefore teaches the limitation of “wherein said summary frames remain on the display screen when the video program is preempted.”

Applicants disagree.

Applicants have reproduced the Examiner-cited passages below, which state (emphasis added):

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Inset window 222 includes the controls of the user interface of the present invention. As with all windows in a windowing operating system, inset window 222 may be resized. During normal operation, inset window 222 would be "shrunk" to about the size shown at 247 so as to exist unobtrusively while the video image is displayed in screen display 220. The video image is, itself, shown in a window that may be resized so that multiple video windows and control panels in inset windows (not shown) can appear on screen display 220 at once. Although the present invention is shown in a windowing environment, it would also work in other environments.

In the preferred embodiment, the portion of screen 220 outside window 222 shows the screen image specified by indicator 238. In this way, the user is able to pinpoint the precise point in the recording to begin playback.

Applicants submit that first above passage discloses that the inset window 222 containing the key frames and controls may be resized so as to exist unobtrusively on the screen while the video image is displayed in widow 220. Additionally, the main window 220 may also be resized and multiple video windows may be viewed at once. The second passage discloses that the screen 220 displays the video program, the actual portion of which can be specified with the indicator 238.

Applicants submit that the Goldberg device does not continue to display said summary frames when said video program in progress is preempted. That is, Goldberg explicitly states that "the inset window 222 would be "shrunk" to about the size shown at 247 so as to exist unobtrusively while the video image is displayed in screen display 220." Thus, Applicants submit that when the video image is not displayed on the display screen, the inset window including the key frames is not displayed.

Moreover, as Goldberg receives the presentation from a central server for viewing, Applicants submit that the video program of Goldberg would not be preempted. That is, with Goldberg, the central server transmits, e.g., a stream of the video presentation to the viewer's computer system and the viewer is in control of what is currently being viewed. Furthermore,

Applicants submit that Goldberg does not disclose that the central server transmits any preempting material, e.g., a commercials. Thus, as only the video presentation is presented to the viewer, the Goldberg system would not be concerned with continuing to transmit the key frames while a video program was preempted, as the video program of Goldberg is never preempted.

Thus, for at least these reasons, Applicants submit that Goldberg does not disclose the features of claim 32, and does not anticipate the present invention.

Accordingly, Applicants respectfully request the rejection over claims 30 – 32 and 34 be withdrawn.

35 U.S.C. § 103 Rejections

Claims 21 – 29 and 36 – 38 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Goldberg in view of U.S. Patent No. 6,144,376 issued to Connelly (“Connelly”). Claim 33 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Goldberg in view of U.S. Patent No. 5,852,474 issued to Nakagaki et al. (“Nakagaki”). These rejections are respectfully traversed.

The examiner bears the initial burden of factually supporting any *prima facie* conclusion of obviousness. If the examiner does not produce a *prima facie* case, the applicant is under no obligation to submit evidence of nonobviousness. See MPEP §2142. To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference

or to combine reference teachings.¹ Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). Applicants submit that the combination of references do not teach or suggest each of the features of the instant invention.

Independent Claims 21 and 36 over Goldberg in view of Connelly

Independent claim 21 recites, in pertinent part:

means for selecting a programming channel containing video program in progress;
a display screen for viewing a video program in progress; and
at least one summary frame also displayed on said display screen overlaid onto said video program in progress at a same time when said programming channel is changed, said at least one summary frame comprising a past frame from said video program in progress, wherein the at least one summary frame comprises a plurality of said summary frames each corresponding to said video program in progress; and
further comprising at least one preview frame comprising a future frame from said video program in progress relative to a real-time broadcast of the video program in progress.

Additionally, independent claim 36 recites, in pertinent part:

. . . means for selecting a programming channel containing a video program in progress;
a display screen for viewing said video program in progress; and

¹ While the *KSR* court rejected a rigid application of the teaching, suggestion, or motivation (“TSM”) test in an obviousness inquiry, the [Supreme] Court acknowledged the importance of identifying “a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does” in an obviousness determination. *Takeda Chemical Industries, Ltd. v. Alphapharm Pty., Ltd.*, 492 F.3d 1350, 1356-1357 (Fed. Cir. 2007) (quoting *KSR International Co. v. Teleflex Inc.*, 127 S.Ct. 1727, 1731 (2007)).
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at least one summary frame also displayed on said display screen along with said video program in progress at a same time when said programming channel is changed, said at least one summary frame comprising a past frame from said video program in progress,

said at least one summary frame corresponding to a past frame from said video program in progress; and

at least one preview frame comprising a future frame from said video program in progress relative to a real-time broadcast of the video program in progress displayed at a same time as said at least one summary frame and said video program in progress,

wherein said at least one summary frame displays a video segment on said viewing screen corresponding to said at least one summary frame.

In addressing previously presented claims 21 and 36, the Examiner asserted that

Goldberg in view of Connelly teaches or suggests each of the features of the present invention and that it would have been obvious to one of skill in the art to combine these references to arrive at instant invention.

However, Applicants submit that Goldberg in view of Connelly does not teach or suggest each of the features of claims 21 and 36, and does not render the present invention unpatentable. For example, Applicants submit that Goldberg in view of Connelly does not teach or suggest at least one preview frame comprising a future frame from said video program in progress relative to a real-time broadcast of the video program in progress.

No Teaching or Suggestion of Preview Frame Comprising a Future Frame
Relative to a Real-Time Broadcast

Applicants submit that Goldberg does not teach or suggest at least one preview frame comprising a future frame from said video program in progress relative to a real-time broadcast of the video program in progress. With the present invention, the summary frames are selected and embedded in the video program prior to the video program being broadcast. As such, the present invention has the ability to provide at least one preview frame comprising a future frame from said video program in progress relative to a real-time broadcast of the video program in

progress. That is, the future frame displays an image of the video program in progress that has not yet occurred in the real-time broadcast of the video program in progress. This allows a viewer to be informed of what occurs in a future (i.e., not yet broadcast) portion of the video program in progress.

In addressing previously presented claim 24 (the features of which have been incorporated into claim 21 by this amendment), the Examiner asserts that:

Goldberg discloses a plurality of key frames that provide access to different temporal points of the video program in progress (see column 4, lines 15 – 41). In a scenario where user tunes to the video program in progress after a portion had already transpired, and begins playback from the start of the video, the keyframe representing the real time progression of the video (see column 4, lines 26 – 28) comprises a future frame from the video program in progress relative to the user's current playback position. The modified system therefore teaches the limitation of, "further comprising at least one preview frame comprising a future frame from the video program in progress".

Additionally, in addressing previously presented claim 36, the Examiner asserts that:

. . . In a scenario where a viewer beings playback of the video at keyframe 224 (20% progress), keyframe 222 "comprises a past frame from the video program in progress" wherein keyframe 224 further corresponds "to a past frame from the video program in program in progress." In that same scenario, the keyframe 230 (60% progress) of the video program in progress relative to user's current playback position (at 20%). Goldberg therefore teaches the limitation of, "further comprising at least one preview frame comprising a future frame from the video program in progress".

However, Applicants submit that Goldberg does not teach or suggest at least one preview frame comprising a future frame from said video program in progress relative to a real-time broadcast of the video program in progress. That is, as discussed above, Goldberg is directed to a recording and playback device for real-time audio/video presentations. As such, Goldberg's keyframes are only generated upon the audio/video presentation occurring in real-time. Thus, Goldberg only displays keyframes of the audio/video presentation that have already occurred in

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real-time. Moreover, as shown in Figure 3 reproduced below, the last keyframe of Goldberg only displays a real-time frame of the audio/video presentation.

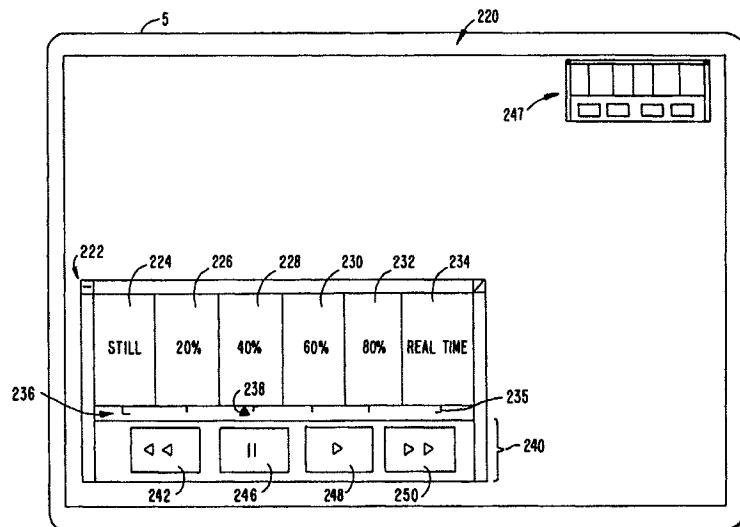


FIG. 3.

As such, Applicants submit that Goldberg does not teach or suggest at least one preview frame comprising a future frame from said video program in progress relative to a real-time broadcast of the video program in progress. That is, as Goldberg only produces the keyframes upon events being recorded in real-time and stored in a memory device, Applicants submit that Goldberg never provides a future frame from said video program in progress relative to a real-time broadcast of the video program in progress.

Moreover, Applicants submit that Connelly does not cure the deficiencies of Goldberg. That is, Applicants submit that Connelly does not teach or suggest at least one preview frame comprising a future frame from said video program in progress relative to a real-time broadcast of the video program in progress. Connelly discloses a method and apparatus for merging, displaying and accessing personal computer content listings via a television user interface.

Applicants note that the Examiner did not assert that Connelly teaches or suggests this feature (or any feature relating to the summary frames), merely relying on Connelly for the feature of “upon changing channels”.

Thus, Applicants submit that Goldberg in view of Connelly does not teach or suggest each of the features of claim 21 and 36, and does not render the present invention unpatentable.

Independent Claim 25 over Goldberg in view of Connelly

Independent claim 25 recites, in pertinent part:

a display screen for viewing a video program;
at least one summary frame displayed on said display screen at a same time and overlaid with said video program when a programming channel is changed, said at least one summary frame comprising one of a past or future frame from said video program; and
a control means for allowing a user to change said video program and for allowing said user to select said at least one summary frame to play at least a segment of said video program corresponding to said selected summary frame,
wherein the at least one summary frame comprises a plurality of said summary frames each corresponding to said video program in progress, and
wherein said summary frames remain on said display screen when said video program is preempted.

In addressing previously presented claim 25, the Examiner asserted that Goldberg in view of Connelly teaches or suggests each of the features of the present invention and that it would have been obvious to one of skill in the art to combine these references to arrive at instant invention.

However, Applicants submit that Goldberg in view of Connelly does not teach or suggest each of the features of claim 25, and does not render the present invention unpatentable. For

example, Applicants submit that Goldberg in view of Connelly does not teach or suggest wherein said summary frames remain on said display screen when said video program is preempted.

In addressing previously presented claim 27 (the features of which have been incorporated into claim 25 by this amendment), the Examiner asserts that Goldberg teaches the summary frames remain on said display screen when said video program is preempted. Applicants disagree.

More specifically, for the reasons set forth above with regard to dependent claim 32, Applicants submit that Goldberg does not teach or suggest that summary frames remain on said display screen when said video program is preempted. Additionally, Applicants submit that Connelly does not cure the deficiencies of Goldberg. Applicants note that the Examiner did not assert that Connelly teaches or suggests this feature (or any feature relating to the summary frames), merely relying on Connelly for the feature of “upon changing channels”.

Thus, Applicants submit that Goldberg in view of Connelly does not teach or suggest each of the features of claim 25, and does not render the present invention unpatentable.

Dependent Claims 22, 23, 26, 28, 29, 37 and 38 over Goldberg in view of Connelly

Claims 22, 23, 26, 28, 29, 37 and 38 are dependent claims, depending from respective distinguishable base claims. Accordingly, these claims should also be in condition for allowance based upon their respective dependencies.

Accordingly, Applicants respectfully request the rejection over claims 21 – 23, 25, 26, 28, 29 and 36 – 38 be withdrawn.

Independent Claim 33 over Goldberg in view of Nakagaki

Claim 33 recites, in pertinent part:

... selecting a plurality of summary frames depicting selected events from said video program prior to a broadcast transmission of the video program;
embedding said summary frames in said video program;
transmitting said video program comprising said summary frames over a media;
simultaneously displaying said video program and said summary frames on a screen when a viewer selects said video program;
writing selected frames from said selecting step only in a row direction of a table; and
reading said selected frames from said table only in a column direction to interleave said summary frames displayed on said screen.

In addressing previously presented claim 33, the Examiner asserted that Goldberg in view of Nakagaki teaches or suggests each of the features of the present invention and that it would have been obvious to one of skill in the art to combine these references to arrive at instant invention.

However, Applicants submit that Goldberg in view of Nakagaki does not teach or suggest each of the features of claim 33, and does not render the present invention unpatentable. For example, Applicants submit that Goldberg in view of Nakagaki does not teach or suggest selecting a plurality of summary frames depicting selected events from said video program prior to a broadcast transmission of the video program. More specifically, for the reasons set forth above with regard to claim 30, Applicants submit that Goldberg does not teach or suggest selecting a plurality of summary frames depicting selected events from said video program prior to a broadcast transmission of the video program.

Additionally, Applicants submit that Nakagaki does not cure the deficiencies of Goldberg. That is, Applicants submit Nakagaki does not teach or suggest selecting a plurality of

summary frames depicting selected events from said video program prior to a broadcast transmission of the video program. Nakagaki discloses a television receiver including a playback mode for storing screen image information for a predetermined time to reproduce the image. Moreover, in a similar manner of operation to Goldberg, Nakagaki teaches a recording device that can replay video segments that have already been transmitted to the recording device.

Applicants note that the Examiner did not rely on Nakagaki for a teaching of selecting of a plurality of summary frames, merely relying on Nakagaki for its purported teaching of interleaving summary frames. As such, Applicants submit that Nakagaki does not cure the deficiencies of Goldberg.

Thus, Applicants submit that Goldberg in view of Nakagaki does not teach or suggest each of the features of claim 33, and does not render the present invention unpatentable. Accordingly, Applicants respectfully request the rejection over claim 33 be withdrawn.

CONCLUSION

In view of the foregoing amendments and remarks, Applicants submit that all of the claims are patentably distinct from the applied prior art of record and are in condition for allowance. The Examiner is respectfully requested to pass the above application to issue. The Examiner is invited to contact the undersigned at the telephone number listed below, if needed. Applicants hereby make a written conditional petition for extension of time, if required. Please charge any deficiencies in fees and credit any overpayment of fees to Attorney's Deposit Account No. 50-0510.

Respectfully submitted,
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